

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 10239569  
PUBLICATION DATE : 11-09-98

APPLICATION DATE : 28-02-97  
APPLICATION NUMBER : 09045657

APPLICANT : ASAHI GLASS CO LTD;

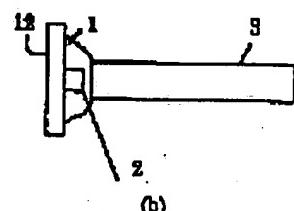
INVENTOR : NARUTOMI MASAKI;

INT.CL. : G02B 6/42 G02B 6/26

TITLE : METHOD OF CONNECTING OPTICAL  
FIBER TO LIGHT EMITTING ELEMENT  
OR LIGHT RECEIVING ELEMENT



(a)



(b)

ABSTRACT : PROBLEM TO BE SOLVED: To make it possible to mutually connect a light emitting or receiving element and an optical fiber with a high efficiency and highly stably by connecting them with a fluorine contained polymer as an adhesive layer.

SOLUTION: A fluorine-containing polymer 1 is fitted to an LD(laser diode) holder 12 and an LD2. A solvent is applied to the surface of the fluorine contained polymer 1, and wait for the polymer 1 to soften. When the polymer 1 softened, an optical fiber 3 is pressed thereto and held for a while until the solvent is dried and the polymer is hardened again. At this time, only the surface of the fluorine contained polymer 1 is softened by adjusting the quantity and solubility of the solvent. The internal unsoftened fluorine contained polymer 1 therefore becomes a protective layer of LD2 so as not to generate the rupture of LD2 caused by pressing the optical fiber too hard. Reflection at the plane of incidence of the fiber is therefore reduced, and divergence of a light source is suppressed. Furthermore, the connecting efficiency can be improved by fixing the light source and the optical fiber in proximity by an easy method.

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